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ECONOMIC TRENDS

AN EXAMINATION OF DEBT CHARGES PAID BY THE PROVINCIAL GOVERNMENT

1. Introduction

Federal and provincial government fiscal measures during the past decade have been dominated by efforts on the part of both levels of government to contain levels of debt. Both levels of government have wrestled with the fact that interest charges on debt have relentlessly squeezed monies available for programs. Notwithstanding federal government's efforts to raise revenues and restrain program spending the federal debt continues to rise because interest being paid on the federal debt is outstripping revenue and expenditure measures, consequently adding further to federal debt.

The Province of Prince Edward Island does not face the predicament that the federal government is in but debt charges are a major outlay for the Province, budgeted at $93.4 million in 1990/91. Furthermore there has been a substantial expansion in debt charges since the late 1970's, both in absolute and relative terms. Debt charges presently form the province's third largest expenditure, after Health Care at $175 million and Education at $150 million.

The purpose of this paper is to explain what the term provincial debt charges means, to examine recent trends and to analyze how they reached current levels.

2. What are Debt Charges?

The Public Accounts of the Province identifies three components to debt charges. These are Interest payments on the Debt, Sinking Fund Provisions and the Amortization of Debenture Discount. In 1988/89 these amounts are shown as $70,950,000 of interest, $9,509,000 of sinking fund provision

1991 CANADA GAMES
PRINCE EDWARD ISLAND
FEBRUARY 17 - MARCH 2
JEUX DU CANADA 1991
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and $455,000 of amortization of debenture discount for a total of $80,915,000.*

These debt payments are the sum of interest payments and provisions on borrowings of various forms over the past twenty years or so. As is the case for any type of loan, each carries a repayment term and a rate of interest. These will be described in more detail later.

As noted above, the Province describes its debt charges in three ways; the interest paid, a sinking fund provision, and the amortization of debenture discount. The interest paid is fairly straightforward. Investors in Prince Edward Island debentures receive annually a set interest payment on the face value of the debenture purchased. For example, in 1975 the Province sold a $10 million debenture issue paying 9 1/2 per cent interest per year over a 20 year term. The annual interest payments on this issue are therefore $950,000 or 9.5 per cent of $10 million.

The sinking fund provisions are contributions made by the Province to a Fund for the repayment of the debt when it becomes due, i.e. to be paid to the debenture holders. These contributions are a fixed percentage of the value of each issue. In the case of the 1975 issue of $10 million, this is 3 per cent of the borrowing or $300,000 per year. There are different percentages applied to each issue depending on the financial conditions at that time. These contributions are added annually to the Sinking Fund which in turn earns interest on the accumulated Balance, and these accumulations are held in the Fund expressly for the purpose of paying back the Debenture holders their investment. In 1995 for example, $10 million must be returned to those persons who are holding the 1975 debentures described above (remembering this was a 20 year issue). The Sinking Fund provides for this repayment.

The interest earned by the Sinking Fund stays in the Fund. Debentures that are provided for in this way are called <u>Funded Debt</u>.

The amortization of debenture discount is a relatively modest component of debt charges at $455,000 in 1988/89. This cost takes the form of the difference between the face value of the debentures and their actual selling price at the time of issue and the payment of commissions to financial agents.

* Detailed examination of debt and debt charges are made using the Consolidated Fund statements in the 1988/89 Public Accounts. Summary data only is presently available for 1989/90.

These costs are spread over the life of the debenture. In the case of our example, the 1975 issue of $10 million at 9 1/2 per cent actually sold on the market for approximately $98 per $100 for a yield of 9.7 per cent. Taking into account additional commission costs associated with the issue, the proceeds of this issue to the Province were $9,675,000. The $325,000 difference from the face value of the issue is an additional cost of borrowing and that amount is spread over the 20 year life of the issue. This is $16,250 per year. Consequently, the annual debt charges associated with the example $10 million debenture issue are $950,000 of interest per year, $300,000 of contributions to the Sinking Fund, and $16,250 of debenture discount. These debt charges extend for twenty years from 1975 to 1995 when the $10 million is returned to the debenture holders from the Sinking Fund.

The bulk of the province's debt is financed in this way.

Table 1 provides a complete description of the province's debt charges in 1988/89 by type of loan.

Table 1
Debt Charges by Type of Loan
1988/89

	$	$
Interest payments on Funded Debentures	46,032,000	
Contributions to Sinking Fund for Debentures	5,489,000	
Amortization of Debenture Discount	455,000	
Debt Charges for Funded Commercial Debt	51,976,000	
Interest on a Serial Debenture from Alberta Heritage Fund	1,885,000	
Interest on Canada Pension Plan Bonds	16,649,000	
Cont. to Sinking Funds for C.P.P Bonds	4,020,000	
C.P.P. Debt Charges	20,669,000	
Interest on Federal Loans	962,000	
Debt Charges on Long Term Debt		75,492,000
Interest on Provincial Deposit Receipts	4,850,000	
Interest on bank advances and Treasury Bills	573,000	
Total Debt Charges on Short Term Debt		5,423,000
Total, Debt Charges		80,915,000

The table identifies that $51,976,000 was expended as debt charges against funded debentures of the sort described above.

This was 64.2 per cent of all debt charges. In addition the Province made interest payments of $1,855,000 on a 12 year serial debenture from the Alberta Heritage Fund that was taken out in 1982. The Province also has significant borrowings from the Canada Pension Plan involving interest payments of $16,649,000 and sinking fund contributions of $4,020,000. These CPP loans are all 20 year loans. A modest amount of interest continues to be paid on a series of federal loans that were extended to the province between 1970 and 1979 and this was $962,000 in 1988/89. These were for a term of 20 and 30 years and they are largely being repaid on an amortization schedule basis.

The Province also paid $4,850,000 in interest to holders of Provincial Deposit Receipts in 1988/89. These are a form of provincial savings bond. Lastly, during the course of the year the Province requires short term financing which generally takes the form of Bank Advances or the sale of Treasury Bills on a short term basis. Interest on these loans was $573,000 in 1988/89.

The debt charges identified in the province's expenditures and described above for 1988/89 were paid on total borrowings of $689,584,000 at March 31, 1989. This is displayed in Diagram 1. Table 2 provides a disaggregation of the gross borrowings at March 31, 1989, which directly relates to the debt charges as described.

Diagram 1

Total Interest Bearing Debt
March 31st 1989, Province of PEI
Millions $

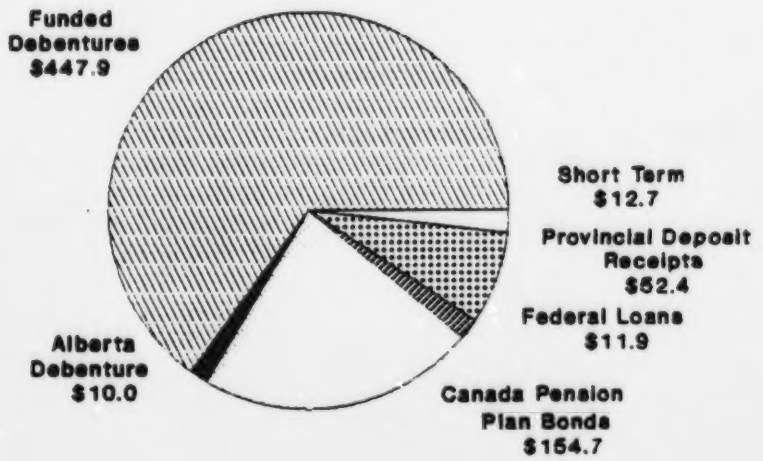


Table 2

Balance of Total Interest Bearing Debt, March 31, 1989

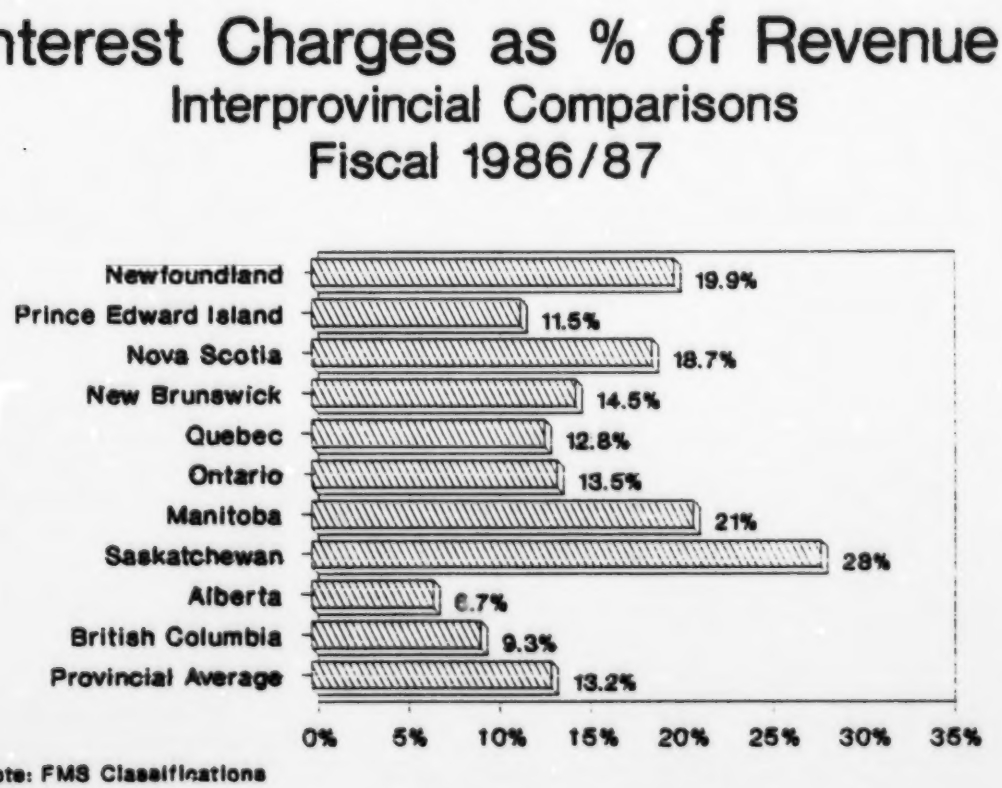
	$
Funded debentures	447,909,000
Alberta Heritage Fund Debenture	10,000,000
Canada Pension Plan Borrowings	154,733,000
Federal Loans Payable	11,893,000
Provincial Deposit Receipts	52,394,000
Treasury Bills and Bank Advances	12,655,000
	689,584,000

One can clearly see that the bulk of the province's debt takes the form of debentures and Canada Pension Plan borrowings. Together these amount to 87 per cent of provincial debt.

3. Interprovincial Comparisons of Debt Charges

A comparison of the province's debt charges with other provinces is made in Diagram 2 for 1986/87. This diagram only identifies interest expense given the varied practices between provinces in their provisions for debt repayment. It shows interest as a percentage of revenues. One can see that Prince Edward Island had a ratio of 11.5 per cent which was less than all Provinces except Alberta and British Columbia.

Diagram 2

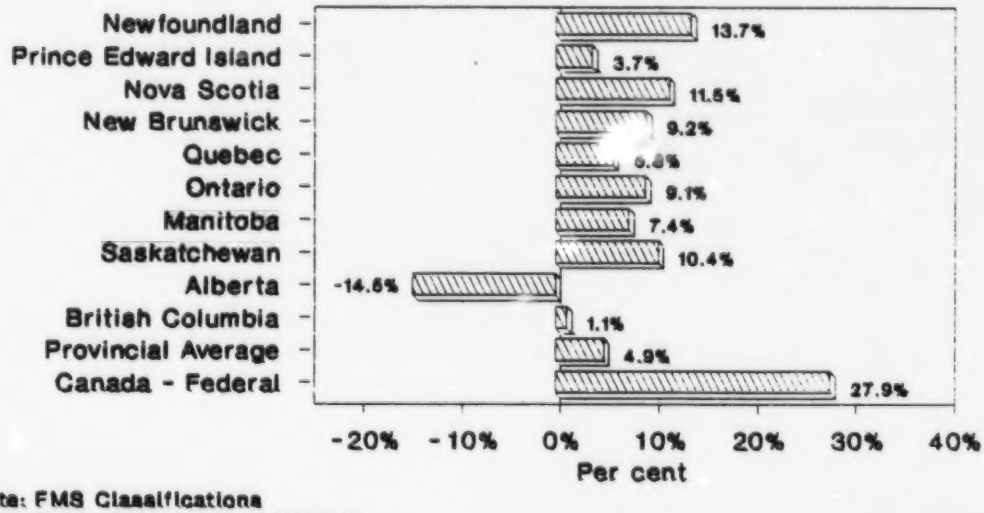


Note: FMS Classifications

Comparisons of debt charges and levels of debt are fraught with difficulty however. The reason for this is that provinces act as "bankers" for their Crown agencies, municipalities, schools and hospitals to varying degrees in addition to financing their own obligations. In addition provinces have varying policies with regard to provisions for debt repayment. Diagram 3

Diagram 3

Net Interest Charges as % of Revenue
Interprovincial Comparisons
Fiscal 1986/87



Note: FMS Classifications
Note: Debt charges net of interest revenues.

shows the interest charges of each province, as well as the federal government, net of interest earnings, as a percentage of revenues. This may more accurately reflect the relative debt costs of each province. In the case of Alberta it shows large net interest earnings. Again, Prince Edward Island appears as an extremely low case at 3.7 per cent. This diagram also provides an idea of how serious the federal situation has become, relative to the provinces.

The large difference between net interest charges and gross debt charges for the province is explained in Table 3 for 1988/89.

Table 3

Gross Debt, Net Debt, and Debt Charges

$

	Balances March 31st, 1989		Charges/Earnings 1988/1989
Gross Debt	689,584,100	Interest	71,405,100
		Sinking Fund Inst	9,509,500
		Debt Charges	80,914,600
Sinking Fund	200,703,600	Interest Earned	20,635,700
		Installment	9,509,500
		S.F. Earnings	30,145,200
Equals Gross Debt Net of Sinking Fund Provisions	488,880,500	Debt Charges Less S.F Earnings	50,769,400
Less Balance of Other Financial Assets	298,157,400	Investment Inc.	31,402,100
Equals Net Debt	190,723,100	Net Debt Charges	19,367,300

As noted earlier, in that year $80.9 million of gross debt charges were paid on $689.6 million of debt. However, the accumulated balance of investments in the Sinking Fund valued $200.7 million that year. Consequently, at that time the debt of the province in excess of the Sinking Fund was actually $488.9 million, and the net charges on that debt were $50.8 million. If one also takes into account the investments of the Province in advances and loans to Crown Agencies, schools, hospitals and municipalities one can see that the Net Debt of the Province was $190.7 million at March 31, 1989. Investment earnings from these investments were $31.4 million in 1988/89. Thus the net debt charges associated with that net debt were $19.4 million in 1988/89. Debt charges associated with the Net Debt of the Province are consequently fairly modest.

A note of caution is required with respect to the interpretation of this table. It is important to understand that the Net Debt of the Province is a statement of the outstanding net obligations of the Government. It is the accumulation of all the government's deficits on current and capital accounts over time, less the value of the Sinking Fund. But interest earnings of the Sinking Fund are not actually applied to current and

capital account deficits and consequently those deficits must be financed through borrowing in aggregate. In addition the investment income of the province is in part provided by the Province and this is explained later.

4. Growth of Debt 1980-1990

The gross borrowings of the province expanded from $273.4 million at March 31, 1980 to reach $712.8 million in March 31, 1990, an average increase of $43.9 million per year over these ten years. The increases in this debt are identified in Table 4.

Table 4

Increase in the Balance of Gross Borrowings
March 31, 1980 - March 31, 1990

	$
Funded Debentures	+307,276,000
Alberta Heritage	- 12,000,000
Canada Pension Plan	+ 96,008,000
Federal Loans	- 12,117,000
Provincial Deposit Receipts	+ 29,335,000
Short Term Borrowings	+ 30,871,000
	+439,373,000

It might be noted that the short term position of the province at March 31st in any year is highly variable. A considerable increase in short term loans took place toward the close of 1990 pending the issue of long term debentures. The table shows clearly that the Province has relied heavily on long term, typically 20 year term, debentures over the past 10 years, with an increase in such debentures of $307.3 million between 1980 and 1990. There has also been a large increase in loans from the Canada Pension Plan, rising from $66.0 million to $162.0 million.

Provincial Deposit Receipts also expanded considerably over this ten year period although much of that expansion occurred 1980 to 1985. The federal loans and Alberta loans are gradually being repaid and there have been no new loans from these quarters since 1982.

How does the increase in debt compare with general indicators of change over this ten year period? In that period the debt increased by 160.7 per cent while debt charges themselves rose from $26.5 million to $86.9 million, an increase of 227.9 per cent. A further analysis of why debt charges have increased more sharply than the level of debt will be made later.

The following table puts these increases into some perspective.

Table 5

Changes March 31, 1980 - March 31, 1990

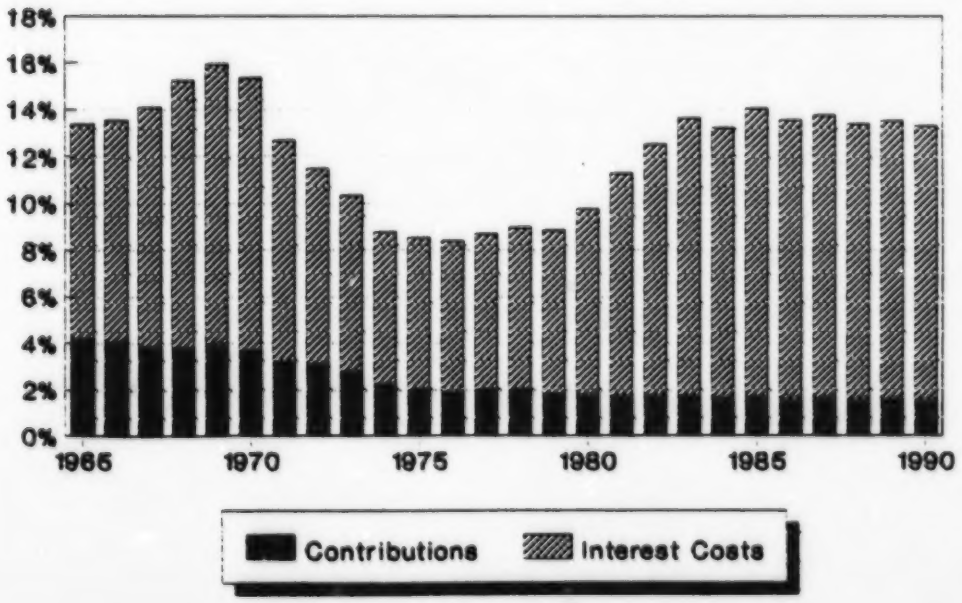
Increase in Debt	160.7%
Increase in Debt Charges	227.9%
Increase in Consumer Prices (P.E.I.)	68.8%
Increase in Personal Income (P.E.I.)	141.7%
Increase in Gross Domestic Product (P.E.I.)	139.9%
Increase in Population (P.E.I.)	6.0%
Increase in Provincial Revenues (P.E.I.)	137.2%
Increase in Provincial Expenditures (P.E.I.)	137.9%

As one can see total provincial revenues and expenditures increased by a very similar degree and were in relation to the growth of the Island's total personal income and growth of Gross Domestic Product, at about 140 per cent. During this period inflation raised costs by about 69 per cent. Clearly debt charges and gross debt increased considerably more than the economy generally.

The following diagram indicates that the acceleration in debt charges in relation to total revenues occurred between 1979 and 1983. The ratio has remained at about 13 1/2 per cent of revenues for the past five years. That diagram separates Debt Charges into the contributions to Sinking Funds and Interest charges. One can see that the Sinking Fund Contributions are a slowly declining aspect of our finances in relative terms. This is because higher interest rates permit a lower rate of contribution to sinking funds.

Diagram 4

Debt Charges as % of Current Revenue Province of PEI, 1965-90



Debt charges are of course basically determined by the level of debt and the interest rates being paid on the loans. Diagram 5 displays the debt of the Province as a percentage of revenues. One can see an escalation in that ratio up to 1981 and continued slow expansion in the ratio up to 1989. This will be examined in more detail later.

Diagram 5

Gross Debt as % of Current Revenue
Province of PEI, 1974/75 - 1989/90

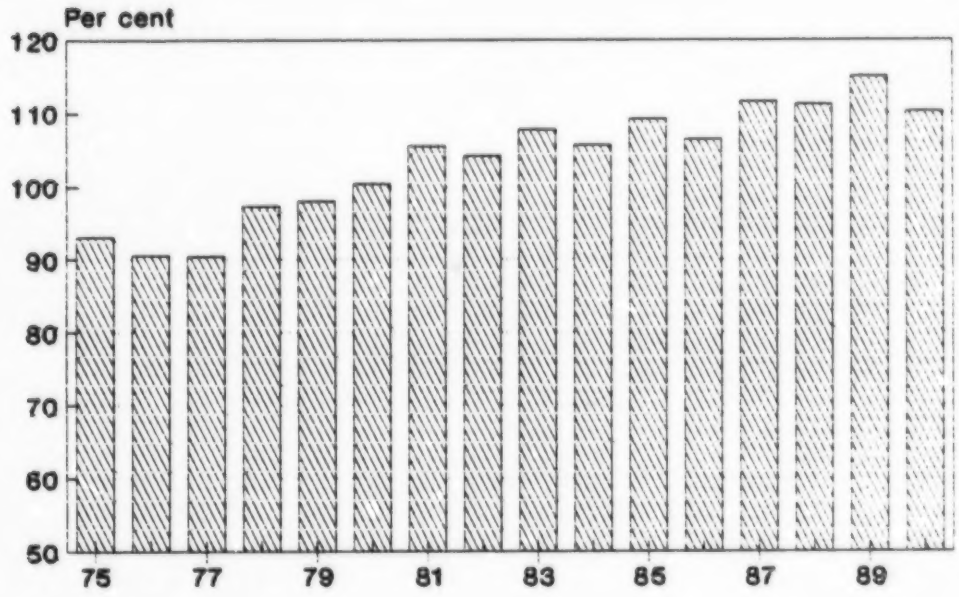
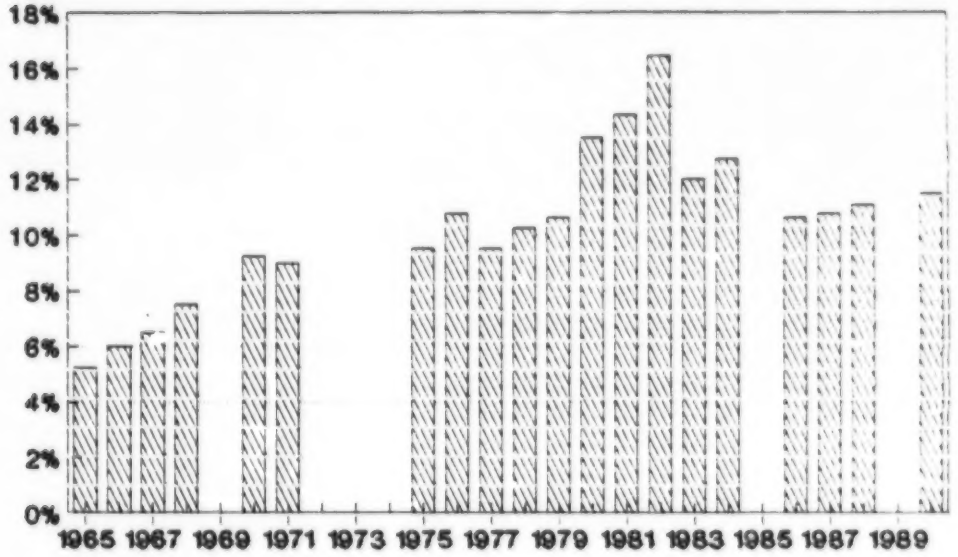


Diagram 6 shows the actual rates of interest paid, and in most cases continuing to be paid, on debenture issues of the province from 1965 to 1990. It is apparent that the escalation in debt charges from 1980 to 1983 was caused both by the upward movement in borrowing that was taking place, coupled with the rising interest costs associated with market conditions. These rates peaked in late 1981 and early 1982 at which time the Province had to borrow at interest rates of about 16 per cent.

Diagram 6

Interest Rates on Debentures
Province of PEI, 1965 to 1990



Note: Missing Values indicate no debentures were issued in that year.

The stability in debt charges relative to revenues, in more recent years is a combination of strong revenue gains, reduced interest rates and reduced contribution rates to Sinking Funds.

5. The Application of Borrowed Funds

Debt is incurred by the Province for three reasons. Firstly, there can be shortfalls of operating account revenues against operating account expenditures, known as the operating account deficit. Secondly, capital expenditure, less capital revenues must be supported. Thirdly, the Province advances capital and makes loans to schools and hospitals, Crown agencies and municipalities.

Let us examine the disposition of the borrowings that took place from March 31, 1980 to March 31, 1990. Table 6 provides a synopsis of the overall change in borrowings and their application between March 31, 1980 and March 31, 1990. The

increased balance of borrowing of $439.4 million discussed previously represented $493.5 million of new borrowing less funded loan redemptions of $54.1 million. The overall application of funds was $520.6 million taking into account net changes in other accounts of $27.1 million.

The largest application of borrowed funds was to capital expenditures (net of capital revenues) in the amount of $248 million. Virtually all this expenditure was devoted to highways.

Accumulated deficits on ordinary account amounted to $80.5 million. Thus it would appear that, in general, the Province has been unable to fully provide for its program expenditures and debt charges from operating revenues in the amount of approximately $8 million per year on average.

Table 6

Change in Borrowing and Application of Funds

March 31, 1980 - March 31, 1990

	$ Millions
Source of Funds	
Increase in Interest bearing Borrowings	+493.5
Net Changes in all other accounts*	+ 27.1
Increase in Funds	520.6
Application of Funds	
Increase in loans receivable and capital advances	192.1
Accumulated Capital Deficits	248.0
Accumulated Current Account Deficits	80.5
	520.6

The province provided a net additional sum of $192.1 million as loans and advances to various agencies and bodies. The major components of these amounts are itemized in Table 7.

* This includes changes in inventories, accounts receivable, accounts payable, deferred charges and cash deposits.

Table 7

Increase in Loans Receivable and Capital Advances

March 31, 1980-90

	$ millions
P.E.I. Development Agency (formerly IEI)	+17.1
Schools	+40.8
Lending Authority	+44.5
Land Development Corporation	+24.2
Hospitals	+31.3
Housing Corporation	+15.4
Energy Corporation	+13.9
Atlantic Veterinary College (UPEI)	+ 8.5
Charlottetown Veterinary Clinic	1.0
Other	- 4.6
Total	192.1

NOTE: The itemized amounts exclude increased provisions for possible losses of $7.2 million, which are subtracted from the total, for Loans with the Development Agency and the Lending Authority.

One can see that the largest increases were loans to the Provincial Lending Authority (+$44.5 million), Advances to School Units (+$40.8 million), Advances to Hospitals (+$31.3 million) and loans to the Provincial Land Development Corporation (+$24.2 million).

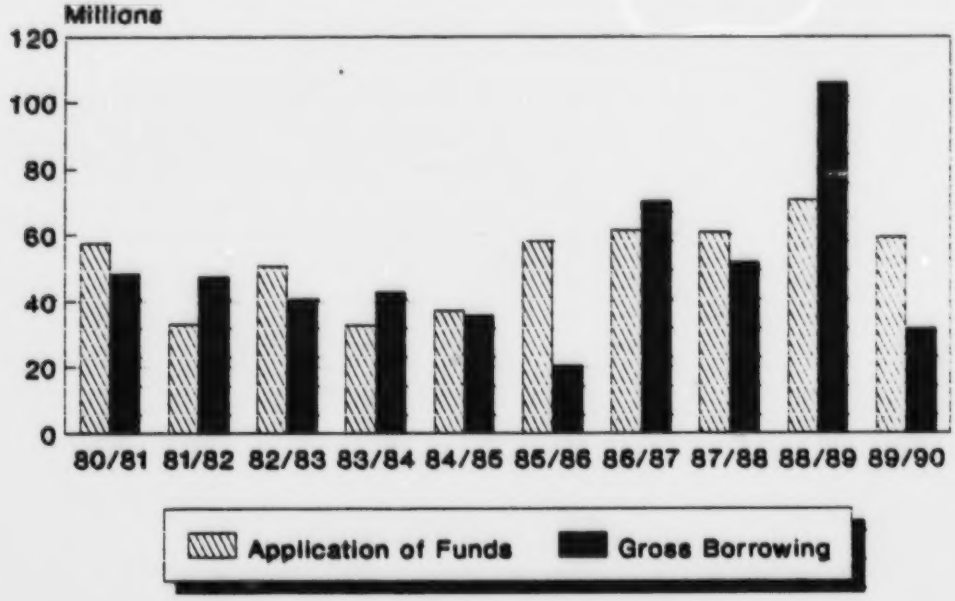
As noted on Page 7, the loans and advances generated $31,402,000 of interest earnings for the Province in 1988/89. As is apparent in table 7 a substantial aspect of provincial loans and advances are for investments in schools and hospitals. These amounts are not recognized as capital expenditures of the Province as is the case for highways, because the School Units and Hospitals are not the adjunct of the provincial government. The interest payments of these entities formed approximately 36 per cent of the $31.4 million interest income of the Province in 1988/89. Interest costs and repayments of principal for such entities are included in provincial grants to hospitals and school units. Thus debt incurred by the Province for school and hospital construction is presently fully provided by the Province from general revenue.

An additional consideration for the Province relates to the need to recognize the need for provisions for future losses on loans by Crown Agencies in view of the fact that not all such loans are repaid in full. At March 31, 1989 the Province had $281.0 million of Loans and Advances on its accounts against which $17.0 million was provided as such provisions. To the extent that these allowances are necessary so the province must provide for such debt out of general revenue. Of the $17 million, $12.9 million was on $45.6 million of loans to the Development Agency and $4.1 million was on $58.1 million of loans to the Lending Authority.

Diagram 7 displays annual aggregate borrowing activity of the Province 1980/81 - 1989/90, as well as the annual application of funds. Differences occur between the two in any given year as the cash position changes.

Diagram 7

Annual Borrowing & Application of Funds Province of PEI, 1980/81 to 1989/90

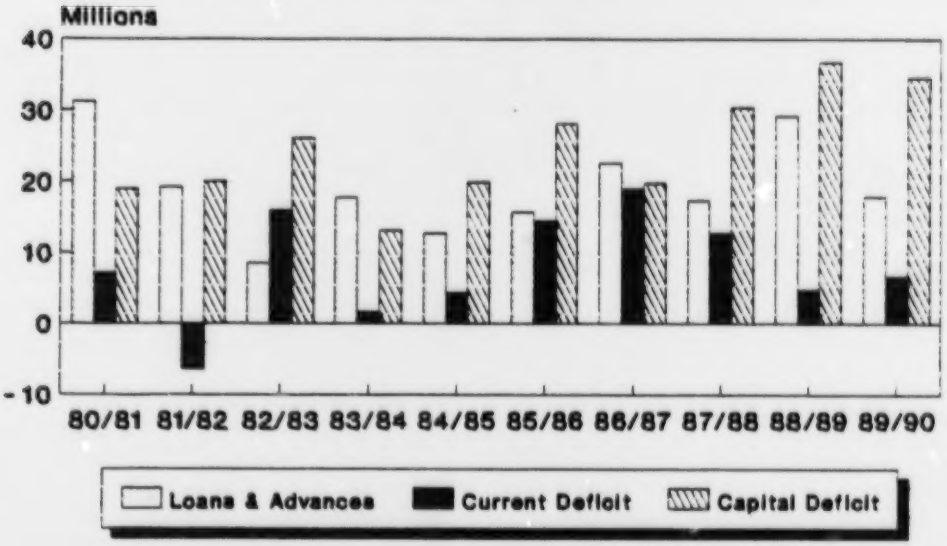


One can see from Diagram 7 that the annual borrowing needs of the province were in slow decline from 1980/81 to 1984/85. This was largely the result of efforts to balance the current account deficit, following the difficult economic conditions of 1980-1982. In particular 1982/83 was a year of high current account and capital account deficits, though there was a

substantial drop in loans and advances in that year. The annual data are detailed in Diagram 8.

Diagram 8

Application of Funds
Province of PEI, 1980/81 to 1989/90



Change in Loans Receivable also includes changes in Capital Advances.

In 1985/86 there was a surge in the current account deficit, capital account deficit and provincial advances and loans. But actual borrowings declined in 1985/86 because in that year the federal government provided the amount of $18.6 million to the province to offset loans with respect to the Northumberland Strait Electric Cable, as a part of the effort to reduce electricity costs on Prince Edward Island.

Borrowing requirements escalated in 1986/87 and have remained at a relatively high level. These additional borrowing requirements have averaged about $60 million per year since then.

Looking to Diagram 8 one can see that the current account deficits have been reduced significantly since 1986/87 but the capital account deficit has expanded. In addition the capital requirements of the Crown Agencies and schools were very high in 1988/89. In that year there was both a substantial expansion in

school construction and expanded advances and loans to the Development Agency.

6. Summary and Conclusions

The general findings of this discussion are that Debt Charges increased rapidly up to the early 1980's as a result of heightened interest rates and rising borrowing. They have been a fairly constant proportion of revenues and expenditures since 1984 as interest rates softened and revenue growth increased, but borrowing has continued to expand.

By comparison with other provinces, debt charges are modest on Prince Edward Island. When taking into account interest earnings on investments they are very small. This is largely attributable to the attention paid on Prince Edward Island to sustaining Sinking Funds for debt repayment as well as the return on investments in schools, hospitals, and Crown Agencies.

Increases in aggregate borrowing over the past ten years have largely taken the form of long term debentures (20 years) and Canada Pension Plan bonds (also 20 years).

The application of borrowed funds is dominated by capital spending for highways. In addition borrowed funds are reloaned, or advanced to crown agencies, school units and hospitals. Current account deficits form a smaller borrowing requirement. The discussion noted that a part of the return on loans and advances must be provided for by the Province from revenues.

In balancing the spending requirements of the Government against available revenues there are essentially two fundamental considerations. The first is to balance the operating account of the province and thereby minimize borrowing on that account. The second is to quantify the impact of borrowing for capital and other needs in terms of the future increased debt charges they produce. These borrowings are not directly reflected in the current account deficit but add to expenditures through increased debt charges in coming years. For example, to borrow $60 million in current market conditions represents increased debt charges of approximately $7.6 million per year. This is an added 8.1 per cent to the present level of debt charges. If revenue growth falls short of such expansion then spending on other programs must be reduced or taxes must be raised, otherwise the current account falls into deficit which requires further borrowing.

Clearly decisions concerning the need for borrowed funds must be carefully balanced against future program needs in light of the present conditions of high interest rates and slow revenue growth.

The purpose of this Trends paper is to explain the importance of Debt Charges to the Province's finances and to broaden understanding of the factors impacting on its present level and growth. Hopefully this objective has been achieved. Questions relating to this paper can be directed to the Director, Economics, Statistics and Fiscal Analysis Division, Telephone: 902-368-4030.